APPENDIX

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# S.25 Data source or collection instrument

Minimum Data Set 3.0

The data collection instrument for this measure is the Minimum Data Set 3.0 (MDS 3.0). Information on this data collection instrument can be found on the Research Data Assistance Center website <http://www.resdac.org/cms-data/files/mds-3.0>. The data documentation tab, <http://www.resdac.org/cms-data/files/mds-3.0/data-documentation>, provides a full list of current and historical MDS data elements.

# 1b.2. Provide performance scores

STATE AVERAGE IN 2011 COMPARED TO 2013

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **STATE ID** | **Average Rate 2011 Q4** | **Average Rate 2013 Q2** | **% Change from 2011 Q4 to 2013 Q2** | **Total # of Facilities with reportable data** |
| **US** | **18.2** | **17.6** | **-3.3%** | **10896** |
| AK | 13.1 | 15.3 | 16.8% | 3 |
| AL | 17.8 | 17.2 | -3.4% | 179 |
| AR | 20.4 | 19.7 | -3.4% | 134 |
| AZ | 18.6 | 16.4 | -11.8% | 116 |
| CA | 17.6 | 16.7 | -5.1% | 735 |
| CO | 14 | 12.6 | -10.0% | 139 |
| CT | 17.5 | 16.9 | -3.4% | 184 |
| DC | 17.3 | 19.6 | 13.3% | 10 |
| DE | 19 | 18.7 | -1.6% | 29 |
| FL | 20 | 19.4 | -3.0% | 571 |
| GA | 19 | 18.2 | -4.2% | 294 |
| HI | 12.8 | 10.7 | -16.4% | 23 |
| IA | 16.7 | 16.2 | -3.0% | 229 |
| ID | 11.9 | 11.2 | -5.9% | 56 |
| IL | 20.8 | 19.3 | -7.2% | 517 |
| IN | 17.4 | 17.5 | 0.6% | 400 |
| KS | 16.8 | 16.7 | -0.6% | 149 |
| KY | 18.9 | 18.6 | -1.6% | 236 |
| LA | 23.3 | 22.8 | -2.1% | 216 |
| MA | 16.4 | 15.7 | -4.3% | 339 |
| MD | 19.6 | 18.4 | -6.1% | 172 |
| ME | 15.2 | 14.9 | -2.0% | 81 |
| MI | 18.6 | 17.4 | -6.5% | 324 |
| **STATE ID** | **Average Rate 2011 Q4** | **Average Rate 2013 Q2** | **% Change from 2011 Q4 to 2013 Q2** | **Total # of Facilities with reportable data** |
| MN | 15.9 | 15.1 | -5.0% | 281 |
| MO | 19.3 | 19.3 | 0.0% | 324 |
| MS | 21.6 | 21 | -2.8% | 153 |
| MT | 12.9 | 12.7 | -1.6% | 31 |
| NC | 18.6 | 17.9 | -3.8% | 348 |
| ND | 14.3 | 13.8 | -3.5% | 30 |
| NE | 15.9 | 15.8 | -0.6% | 114 |
| NH | 15.5 | 14.3 | -7.7% | 60 |
| NJ | 20.6 | 19.5 | -5.3% | 314 |
| NM | 15.8 | 15.5 | -1.9% | 36 |
| NV | 17.9 | 16.6 | -7.3% | 35 |
| NY | 18.4 | 18 | -2.2% | 444 |
| OH | 18.1 | 17.5 | -3.3% | 792 |
| OK | 20.3 | 20.6 | 1.5% | 129 |
| OR | 16.9 | 15.6 | -7.7% | 104 |
| PA | 17.7 | 17.4 | -1.7% | 594 |
| RI | 20 | 17.7 | -11.5% | 61 |
| SC | 18 | 17.7 | -1.7% | 151 |
| SD | 12.5 | 13.6 | 8.8% | 48 |
| TN | 18 | 17.6 | -2.2% | 247 |
| TX | 19.3 | 18.5 | -4.1% | 568 |
| UT | 11.9 | 11.9 | 0.0% | 61 |
| VA | 18 | 17.7 | -1.7% | 229 |
| VT | 13.3 | 13.6 | 2.3% | 29 |
| WA | 16.3 | 15.5 | -4.9% | 194 |
| WI | 15.4 | 16 | 3.9% | 274 |
| WV | 18.1 | 17.9 | -1.1% | 91 |
| WY | 13 | 14.2 | 9.2% | 18 |

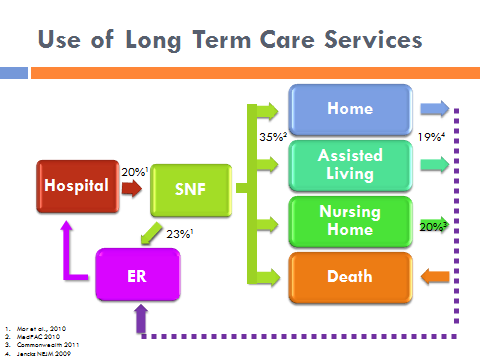
# 1b.4 Provide disparities data from the measure as specified

2013 3RD QUARTER ETHNICITY DATA FROM CMS MDS 3.0

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **State** | **Caucasian** | **African American** | **Hispanic** | **Asian** | **All Others** | **State Total** |
| **NATIONAL** | 76.8% | 13.8% | 5.1% | 1.8% | 2.5% | 1413862 |
| Alabama | 73.1% | 25.3% | 0.3% | 0.2% | 1.2% | 23166 |
| Alaska | 68.2% | 3.0% | 1.2% | 2.4% | 25.3% | 509 |
| Arizona | 73.0% | 4.7% | 13.7% | 0.9% | 7.7% | 12520 |
| Arkansas | 77.9% | 12.5% | 0.4% | 0.1% | 9.1% | 17992 |
| California | 58.4% | 10.9% | 17.4% | 10.8% | 2.5% | 106403 |
| Colorado | 81.5% | 4.5% | 9.8% | 1.2% | 3.0% | 16693 |
| Connecticut | 82.9% | 9.1% | 4.7% | 0.5% | 2.9% | 25328 |
| Delaware | 74.5% | 21.0% | 1.9% | 0.4% | 2.3% | 4381 |
| District of Columbia | 13.1% | 83.0% | 1.2% | 1.2% | 1.5% | 2636 |
| Florida | 71.1% | 15.6% | 10.7% | 0.5% | 2.2% | 76472 |
| Georgia | 64.7% | 33.2% | 0.7% | 0.5% | 1.0% | 34400 |
| Hawaii | 22.3% | 0.6% | 2.4% | 65.2% | 9.6% | 3789 |
| Idaho | 94.2% | 0.2% | 2.1% | 0.5% | 3.0% | 4001 |
| Illinois | 75.7% | 17.4% | 3.6% | 1.8% | 1.5% | 74961 |
| Indiana | 89.6% | 7.9% | 0.8% | 0.2% | 1.5% | 40014 |
| Iowa | 96.9% | 1.3% | 0.4% | 0.2% | 1.2% | 25224 |
| Kansas | 91.3% | 4.8% | 1.7% | 0.4% | 1.8% | 18734 |
| Kentucky | 90.4% | 8.0% | 0.2% | 0.2% | 1.2% | 23440 |
| Louisiana | 68.0% | 28.7% | 0.7% | 0.3% | 2.3% | 25967 |
| Maine | 97.0% | 0.3% | 0.2% | 0.1% | 2.4% | 6414 |
| Maryland | 60.5% | 31.9% | 1.1% | 1.7% | 4.9% | 25355 |
| Massachusetts | 87.9% | 5.0% | 2.7% | 1.3% | 3.2% | 43027 |
| Michigan | 79.7% | 16.2% | 0.9% | 0.4% | 2.9% | 41261 |
| Minnesota | 92.2% | 2.7% | 0.6% | 0.6% | 3.9% | 27429 |
| Mississippi | 63.6% | 34.7% | 0.2% | 0.2% | 1.4% | 16099 |
| Missouri | 86.8% | 11.3% | 0.5% | 0.3% | 1.1% | 38362 |
| Montana | 87.2% | 0.2% | 0.8% | 0.2% | 11.6% | 4769 |
| Nebraska | 91.6% | 3.3% | 1.1% | 0.3% | 3.7% | 12336 |
| Nevada | 73.3% | 9.9% | 6.0% | 3.8% | 7.0% | 4910 |
| New Hampshire | 98.8% | 0.3% | 0.3% | 0.2% | 0.3% | 6959 |
| New Jersey | 70.9% | 16.5% | 7.1% | 2.5% | 3.0% | 46618 |
| New Mexico | 55.2% | 2.0% | 31.3% | 0.4% | 11.1% | 5970 |
| New York | 69.1% | 18.3% | 8.5% | 2.4% | 1.8% | 109449 |
| North Carolina | 71.2% | 25.2% | 0.5% | 0.3% | 2.8% | 38211 |
| **State** | **Caucasian** | **African American** | **Hispanic** | **Asian** | **All Others** | **State Total** |
| North Dakota | 97.3% | 0.1% | 0.1% | 0.2% | 2.4% | 5722 |
| Ohio | 83.7% | 13.7% | 0.7% | 0.2% | 1.7% | 79057 |
| Oklahoma | 86.6% | 6.9% | 1.1% | 0.4% | 5.0% | 19119 |
| Oregon | 90.8% | 1.9% | 1.7% | 1.4% | 4.1% | 7798 |
| Pennsylvania | 86.3% | 10.2% | 1.3% | 0.4% | 1.7% | 81594 |
| Puerto Rico | \* | 1.3% | 98.7% | \* | 0.0% | 155 |
| Rhode Island | 92.8% | 3.7% | 2.1% | 0.5% | 0.9% | 8173 |
| South Carolina | 68.5% | 30.1% | 0.3% | 0.2% | 0.9% | 17082 |
| South Dakota | 93.9% | 0.2% | 0.2% | 0.1% | 5.6% | 6393 |
| Tennessee | 83.1% | 15.2% | 0.3% | 0.2% | 1.3% | 30591 |
| Texas | 67.1% | 12.9% | 16.5% | 0.9% | 2.6% | 98063 |
| U.S. Virgin Islands | 2.8% | 86.1% | 2.8% | \* | 8.3% | 36 |
| Utah | 88.7% | 1.4% | 4.0% | 1.3% | 4.6% | 5668 |
| Vermont | 97.7% | 0.5% | 0.1% | 0.2% | 1.5% | 2805 |
| Virginia | 71.8% | 24.2% | 0.9% | 1.2% | 1.9% | 29379 |
| Washington | 86.3% | 3.6% | 2.2% | 3.6% | 4.4% | 17794 |
| West Virginia | 94.1% | 3.0% | 0.2% | \* | 2.7% | 9610 |
| Wisconsin | 93.6% | 3.6% | 0.8% | 0.3% | 1.7% | 28643 |
| Wyoming | 91.5% | 0.6% | 3.4% | 0.2% | 4.4% | 2381 |

# 1c.3 Provide epidemiologic or resource use data that demonstrates the measure addresses a high priority aspect of healthcare

THE FLOW OF MEDICARE BENEFICIARIES AFTER DISCHARGE FROM AN ACUTE CARE HOSPITAL



# Comparison of CMS’s skilled nursing facility readmission measure and PointRight OnPoint-30 SNF rehospitalizations

CMS and AHCA both have developed 30 day rehospitalization measures for submission to the National Quality Forum (NQF) for consideration for endorsement. In anticipation of this submission, CMS and AHCA initiated discussions in September, 2013 to assess any opportunities for alignment and harmonization. These discussions have included consideration of the conceptual framework of the measures, the available data sources, and the intended programmatic use of the measures by both agencies. CMS and AHCA have come to the mutual conclusion that these measures are fundamentally distinct but complimentary and each deserves NQF consideration for endorsement on its merits.

Table 1 below presents a side by side comparison of CMS’s Skilled Nursing Facility Readmission Measure (SNFRM) and the PointRight OnPoint-30 rehospitalization metric provided by AHCA. The SNFRM and PointRight OnPoint-30 measure each provide different insights into the issue of hospital readmissions from skilled nursing facilities (SNFs) and we believe these are worth preserving in separate endorsed quality measures.

1. Measure Purpose

Both the SNFRM and PointRight OnPoint-30 are designed to generate retrospective reports on the quality of care provided by SNFs that can be used for benchmarking facilities’ performance, and as a basis for performance incentives. In addition, the PointRight OnPoint-30 measure is based on MDS data allowing it to be calculated more timely and frequently than claims and thus is potentially suitable for monitoring progress in quality improvement efforts

The two measures focus on SNF patients but have different denominator definitions. The SNFRM is a measure of SNFs’ performance among Medicare FFS patients only; the OnPoint-30 measure is an all-payer measure, which includes Medicare Advantage patients as well as those covered by Medicaid and commercial insurance. The SNFRM measure does not include patients with non-Medicare qualifying hospital stays (e.g. hospital stays < three days or stays in observation status only) while the PointRight OnPoint-30 includes these individuals. The PointRight OnPoint-30 measure includes readmissions to the SNF in the denominator because the measure’s developers view “revolving door” SNF to hospital to SNF transfers as a clinical quality problem that should lower a facility’s quality score if it happens.

Both the SNFRM and the PointRight OnPoint-30 measures measure hospital readmissions attributable to the facility but define the numerator differently. The SNFRM has an algorithm for identifying readmissions likely to have been planned and removing them from the numerator and the denominator, which the PointRight OnPoint-30 measure does not. The SNFRM excludes observation stays from the numerator while PointRight OnPoint-30 includes them. The SNFRM includes in the numerator hospitalizations from the community that occurred between the date of SNF discharge and 30 days post SNF admission from the hospital while PointRight OnPoint-30 measures rehospitalizations that only occur during the SNF stay.

1. Exclusions
   1. The SNFRM excludes planned readmissions, observation stays, and readmissions for medical cancer treatment in alignment with the (NQF# 1789) Hospital-Wide Readmission Measure and other condition-specific measures currently implemented in quality reporting and value-based purchasing programs at CMS.
   2. PointRight OnPoint-30 does not contain such exclusions.
2. Risk-Adjustment
   1. Both measures provide risk adjustment strategy based on logistic regression of multiple demographic and clinical characteristics but rely on different sources of data for the information and as such have different list of variables.
   2. The SNFRM measure provides a robust risk-adjustment that provides comparable accounting for patient risk reported by the hospital on claims and is similar to prior CMS readmissions measures. This model makes use of demographic characteristics, comorbidities, and treatment characteristics obtained through hospital and SNF claims data. The full list of indicators is available in the submitted documentation.
   3. PointRight OnPoint-30 makes use of demographic, comorbidity and treatment characteristics as well, but they are based on MDS rather than claims data. The full list of indicators is available in the submitted documentation. Table 2 presents the risk-adjustors included in the model.
   4. The two risk adjustment methodologies are equally robust, as measured by roughly equivalent C-statistics for both measures of 0.67. The important difference is that the CMS measure takes a much broader range of comorbidities into account than the PointRight OnPoint-30 measure. The PointRight OnPoint-30 measure considers a broader range of the clinical status of the patient on admission such as cognition, pain, and functional dependencies. The SNFRM will give relatively more valid risk adjustment for SNFs that admit medically complex patients; the OnPoint-30 measure will give relatively better risk adjustment for SNFs that admit severely disabled patients without multiple medical comorbidities (e.g. those with cognitive impairment, dependency in eating, etc.). Nonetheless, the overall performance of the two risk adjustment models is comparable based on the C-statistics.
3. Data Sources
   1. The SNFRM uses Medicare fee-for-service claims (FFS) data. It is aligned with other claims-based readmissions measures at CMS in order to promote shared accountability for improving care transitions across all settings. Since it excludes Medicare Advantage patients, this makes the measure more appropriate for quality adjustment of Medicare FFS payments, but not as useful for assessing a SNF’s overall performance. PointRight OnPoint-30 is a measure of overall performance for all payers, which makes it inappropriate to assess Medicare FFS practices only, especially when a facility has small volume or proportion of patients that are Medicare FFS.
   2. OnPoint-30 uses MDS data to avoid the substantial lag in the availability of claims for organizations not affiliated with CMS, making it more appropriate for quality improvement efforts at the facility level.

**Table 1. Comparison of the SNFRM and PointRight OnPoint-30 SNF Rehospitalizations**

|  |  |  |
| --- | --- | --- |
|  | **Skilled Nursing Facility 30-Day All-Cause Readmissions Measure (SNFRM)** | **PointRight OnPoint-30** |
| **Data Source** | Medicare Part A SNF & Hospital FFS Claims | MDS 3.0 |
| **Level of Analysis** | Facility | Facility |
| **Numerator Window** | 30 days after discharge from the prior proximal hospitalization at an IPPS, CAH, or psychiatric hospital. | 30 days after admission to the SNF from an acute care hospital. |
| **Denominator Window** | Patient must have a SNF admission within 1 day after being discharged from the prior proximal hospital stay. | Patients must have had a hospital stay prior to admission to the SNF, as indicated on the MDS admission assessment, which generally is considered 1 calendar day since the hospital discharge |
| **Measurement Period** | Year (calendar year), updated annually | Rolling 12 Months; updated quarterly |
| **Measure Type** | Outcome | Outcome |
| **Type of Score** | Rate | Rate |
| **Numerator** | The number of SNF stays where there was an all-cause and unplanned readmission to an acute care hospital (IPPS, CAH) within 30 days of discharge from their prior proximal hospitalization. Hospital readmissions that occur after discharge from the SNF stay but within 30 days of the proximal hospitalization are included. | The number of individuals sent back to any hospital (excluding ER only visits) from a nursing facility within 30 days of admission as indicated on the MDS discharge assessment during the 12 month measurement period. All rehospitalizations (both inpatient and observation only) for any reason are included. Hospital Readmissions that occur after discharge from the SNF but within 30 days of the proximal hospitalization are excluded. |
| **Numerator Exclusions** | Readmissions that are identified using the Planned Readmission algorithm and observation stays. | ER only visits are excluded. Planned readmissions are not excluded. |
| **Denominator** | All patients who have been admitted to a SNF within 1 day of discharge from a prior proximal hospitalization (admission to an IPPS acute care hospital, CAH, of a psychiatric hospital). | The denominator is the number of admissions with a MDS admission assessment to a skilled nursing facility that indicated admission from an acute hospital. Admission to SNF occurred during the target rolling 12-month period. |
|  | **Skilled Nursing Facility 30-Day All-Cause Readmissions Measure (SNFRM)** | **PointRight OnPoint-30** |
| **Denominator Exclusions** | * Age <18 yrs. * SNF stays where the patient had one or more intervening post-acute care (PAC) admissions (inpatient rehabilitation facility [IRF] or long-term care hospital [LTCH]) which occurred either between the prior proximal hospital discharge and SNF admission or after the SNF discharge, within the 30-day risk window. Also excluded are SNF admissions where the patient had multiple SNF admissions after the prior proximal hospitalization, within the 30-day risk window. * SNF stay with a gap >1 day between discharge from the acute care hospital and admission to the SNF. * Patient did not have at least 12 months of FFS Medicare enrollment. * Patient did not have FFS Medicare enrollment for the entire risk period. * SNF stay in with the prior proximal hospitalization for medical treatment of cancer or rehabilitation care, fitting of prostheses and adjustment of devices. Patients with cancer whose principal diagnosis from the prior proximal hospitalization was for other diagnoses or for surgical treatment of cancer remain in the measure. * Patient left SNF against medical advice. | The denominator does not contain any individual level exclusions.  Rates for nursing homes were not calculated if they had greater than five percent missing data on the discharge MDS assessment. We calculate the % of admissions that do not have either a discharge MDS assessment or quarterly MDS assessment within 120 days following admission. If <95% we do not report a facilities rate. |
|  | **Skilled Nursing Facility 30-Day All-Cause Readmissions Measure (SNFRM)** | **PointRight OnPoint-30** |
| **Risk Adjustment** | Risk adjustment is based on age, sex, length of stay during prior proximal hospitalization, time spent in ICU during prior proximal hospitalization, disabled as a reason for Medicare coverage, ESRD, number of acute care hospitalizations in the past 365 days, principal diagnosis based on AHRQ’s single level CCS, system specific surgical indicators, individual comorbidities as grouped by CMS hierarchical condition categories or other comorbidity indices, and multiple comorbidities, modeled using the sum of HCCs if sum is >2 and the square of this sum. | Adjusted based on 33 different clinical variables and compared observed rate to expected rate.  *See Table below with list of variables.* |
| **Frequency with Which the Risk Adjustment Coefficients are Updated** | Not Specified | Bi-annual |

**Table 2. PointRight OnPoint-30 Risk Adjustment Variables**

|  |  |
| --- | --- |
| **Demographic** | **Diagnoses** |
| Age >65 | Anemia |
| Male | Asthma |
| Medicare as Primary Payer | Diabetes |
| **Functional Status** | Hx of heart failure |
| Total Bowel Incontinence | Hx of sepsis |
| Eating Dependent | Hx of viral hepatitis |
| Needs 2 person Assistance in ADLs | Hx of internal bleeding |
| Cognitive impairment (Dementia) |  |
| **Prognosis** | **Services & Treatments** |
| End Stage prognosis poor | Dialysis |
| Recently rehospitalized | Insulin prescribed |
| Hx of respiratory failure | Ostomy Care |
| Receiving Hospice Care | Cancer chemotherapy |
| **Clinical Condition** | Receiving radiation therapy |
| Daily Pain | Continue to receive IV medication |
| Pressure Ulcer Stage (4 variables) | Continue to receive oxygen |
| Venous arterial ulcer | Continued tracheostomy care |
| Diabetic foot ulcer |  |